

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named
Inventor : Eric R. Lovegren et al.

Appln. No. : 09/667,297

Filed : September 22, 2000

For : IMPROVED THRESHOLD SETTING
FOR A RADAR LEVEL
TRANSMITTER

Docket No.: R11.12-0701

Group Art Unit: 2857

Examiner: Kimberly
White

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

I HEREBY CERTIFY THAT THIS PAPER IS BEING
SENT BY U.S. MAIL, FIRST CLASS, TO THE
ASSISTANT COMMISSIONER FOR PATENTS,
WASHINGTON, D.C. 20231, THIS

11 DAY OF July, 2001.


PATENT ATTORNEY

Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed.

The information disclosure statement is being filed within the time periods set forth in 37 C.F.R. § 1.97(b). Accordingly, no statement or fee is required.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.


By:

Judson K. Champlin, Reg. No. 34,797
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Minneapolis, Minnesota 55402-3319
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JKC/djb

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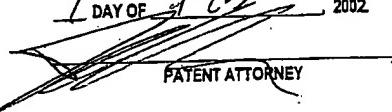
Examiner:

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7 DAY OF Feb 2002


PATENT ATTORNEY

Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed.

Submitted herewith is a copy (with English translation as appropriate) of an Official Search Report of the European Patent Office in counterpart foreign application No. PCT/US 01/29467 filed September 20, 2001.

TIME OF FILING

The information disclosure statement is being filed:

1. with the application or within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. In accordance with 37 C.F.R. § 1.97(b), no statement or fee is required.

2. _____ after the time period specified in paragraph 1 above, but before the mailing date of a final action under 37 C.F.R. § 1.113 or notice of allowance under 37 C.F.R. § 1.311. Therefore, in accordance with 37 C.F.R. §

-2-

1.97(c), submitted herewith is:

(check either A or B below)

- A. a statement as specified in 37 C.F.R. § 1.97(e).
 - B. the fee set forth in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c).
3. after the mailing date of either a final action under 37 C.F.R. § 1.113 or a notice of allowance under 37 C.F.R. § 1.311, whichever occurs first, but before payment of the issue fee. Therefore, Applicant petitions for consideration and submits herewith:
- A. a statement as specified in 37 C.F.R. § 1.97(e);
 - B. the petition fee set forth in 37 C.F.R. § 1.17(i).

STATEMENT

(only used if No. 2(A) or No. 3 above is checked)

The person(s) signing below certify

(check appropriate paragraph)

- that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(1).

OR

- that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(2).

-3-

METHOD OF PAYMENT

No fee is required.

Attached is a check in the amount of \$_____.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

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BDK/djb

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WASHINGTON, D.C. 20231, THIS

13 DAY OF APRIL 2001.


PATENT ATTORNEY

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The information disclosure statement is being filed within the time periods set forth in 37 C.F.R. § 1.97(b). Accordingly, no statement or fee is required.

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Sheet 1 of 2

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|---|--|-----------------------------------|--------------------------|
| FORM PTO-1449 | | Atty. Docket No.: R11.12-0701 | Appl. No.: 09/667,297 |
| LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT | | First Named Inventor: | |
| | | Eric R. Lovegren et al. | |
| | | Filing Date September 22, 2000 | Group Art: 2857 |

U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date | Name | Class | Sub Class | Filing Date If Appropriate |
|------------------|--------------|----------|-------------|-------|-----------|----------------------------|
| AA | 3,812,422 | 05/74 | Carolis | 324 | 58-5 | |
| AB | 3,900,260 | 08/75 | Wendt | 356 | 5-12 | |
| AC | 3,995,212 | 11/20/76 | Ross | 324 | 58-5-B | |
| AD | 4,044,355 | 8/77 | Evardeson | 342 | 124 | |
| AE | 4,435,709 | 3/84 | Kipp | 342 | 101 | |
| AF | 4,972,386 | 11/90 | Bau | 367 | 99 | |
| AG | 5,157,337 | 10/20/92 | Neel et al. | 324 | 632 | |
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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| AI | "Novel Methods of Measuring Impurity Levels in Liquid Tanks", IEEE MTT-S International Microwave Symposium Digest, US, New York, IEEE, pages 1651-1654 (1997) |
| AJ | "Micropower Impulse Radar Technology and Application", by Mast et al., U.S. Dept. of Energy, Lawrence Livermore National Laboratory, UCRL-ID 130474 (April 15, 1998). |
| AK | "Radar Level Technology Offers Accurate, Noncontact Measurements" by Fred Fitch, Special Report Flow, Level, Pressure, I&CS, pages 27-30 (January 1996). |
| AL | "Gauging and Level Measurement for Liquids, Interface and Granular Materials", Reflex-Radar, KROHNE, Technical Data BM 100, BM 100 EEX (12/96). |
| AM | "Low-Cost Wideband Spread-Spectrum Device Promises to Revolutionize Radar Proximity Sensors", Technology Advances, Electronic Design (July 25, 1994) |

EXAMINER: DUPLICATE /by R.Wat

DATE CONSIDERED: 11/07/02

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

-3-

Sheet 2 of 2

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| FORM PTO-1449 | | Atty. Docket No.: R11.12-0701 | Appl. No.: 09/667,297 |
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| | | Filing Date September 22, 2000 | Group Art: 2857 |

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| Examiner Initial | Document No. | Date | Name | Class | Sub Class | Filing Date If Appropriate |
|------------------|--------------|--------|-------------------|-------|-----------|----------------------------|
| BA | 5,440,310 | 8/95 | Schreiner | 342 | 124 | |
| BB | 5,636,774 | 08/97 | Neison et al. | 73 | 290 | |
| BC | 5,659,321 | 8/95 | Burger et al. | 342 | 124 | |
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| BG | 6,168,681 | 12/00 | Meszaros et al. | 342 | 124 | |
| BH | 6,184,018 | 2/01 | Meinel | 342 | 124 | |
| BI | 6,198,424 | 3/6/01 | Diede et al. | 342 | 22 | |

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| | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
|----|--------------|---------|---------|-------|-----------|--------------------|
| BJ | 09069731A | 3/11/97 | JP | H03D | 7/00 | X |
| BK | 697940A | 3/11/97 | SU | C01R | 23/02 | |

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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| BL | "Eclipse Guided Wave Radar", Magnetrol, printed from http://www.magnetrol.com/html/eclipse.htm (July 23, 1998). |
| BM | "Approval Standard Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II and III, Division 1 Hazardous (Classified) Locations", Factory Mutual Research, Class No. 3610, pages 1-70 (October 1988). |
| BN | "Measuring Fluid Levels with Radar", by Steven Ashley, Mechanical Engineering, pages 82-83 (January 1996). |
| BO | "World's Fastest Solid-State Digitizer", Lawrence Livermore National Laboratory, Energy & Technology Review, pages S1-S6 (April 1994). |

EXAMINER: D. Lovegren Jay R. Wet DATE CONSIDERED: 11/07/02

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1

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U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date | Name | Class | Sub Class | Filing Date If Appropriate |
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| AA | 5,969,686 | 10/19/99 | Burger et al. | 342 | 124 | |
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| AL | | | | | | |
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EXAMINER: DUPURATEMy R WFO

DATE CONSIDERED: 11/07/03

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Sheet 1 of 2

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| FORM PTO-1449 | | Atty. Docket No.: | Appl. No.: |
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| | | Eric R. Lovegren et al. | |
| | | Filing Date | Group Art: |
| September 22, 2000 | | 2857 | |

U.S. PATENT DOCUMENTS

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|------------------|--------------|------|------|-------|-----------|----------------------------|
| AA | | | | | | |
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FOREIGN PATENT DOCUMENTS

| | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
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| AL | EP 0 928 974 A2 | 7/14/99 | EPO | | | X |
| AM | WO 97/06448 | 1/30/96 | WO | | | X |
| AN | | | | | | |

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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EXAMINER: DUPUCATE *My R Wm*

DATE CONSIDERED: 11/07/02

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